

## **REMARKS**

The present Amendment is in response to the Examiner's Office Action mailed July 12, 2007. By this paper, claims 1, 4, 12, and 18 are amended and no claims are added or cancelled. Claims 1-30 are now pending in view of the above amendments.

Reconsideration of the application is respectfully requested in view of the above amendments to the claims and the following remarks. For the Examiner's convenience and reference, Applicants' remarks are presented in the order in which the corresponding issues were raised in the Office Action.

Please note that the following remarks are not intended to be an exhaustive enumeration of the distinctions between any cited references and the claimed invention. Rather, the distinctions identified and discussed below are presented solely by way of example to illustrate some of the differences between the claimed invention and the cited references. In addition, Applicants request that the Examiner carefully review any references discussed below to ensure that Applicants' understanding and discussion of the references, if any, is consistent with the Examiner's understanding.

### **I. Rejection Under 35 U.S.C. § 103**

The Examiner rejects claims 1-3, 7-13, 15, 18-20, and 24-30 under 35 U.S.C. § 103(a) as being unpatentable over United States Patent No. 5,666,450 to Fujimura et al. ("Fujimura") in view of United States Statutory Invention Registration No. H315 to Genco et al. ("Genco"). As an initial matter, Applicants note that in order to establish a *prima facie* case of obviousness, it is the burden of the Examiner to demonstrate that three criteria are met: first, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings; second, there must be a reasonable expectation of success; and third, the prior art reference (or references when combined) must teach or suggest all the claim limitations. *MPEP* § 2114.

As shown above, Applicants have amended independent claim 1 to recite "An apparatus to measure a concentricity of optical components in an optical assembly, said optical assembly comprising a header with a photonic device mounted thereon, said photonic device having a first

optical axis, said optical assembly further comprising a cap having a lens therein, said lens having a second optical axis, the apparatus comprising: a chuck configured to support said optical assembly, said chuck being adapted to support said optical assembly without obstructing a view of at least a portion of said lens, said chuck being exterior to said cap of said optical assembly and said optical assembly being placed on top of at least a portion of said chuck; and a visual display system adapted to depict a position of said lens relative to said photonic device and to measure said position.” (Emphasis Added). Similar amendments were also made to independent claims 12 and 18. Support for such amendments is found at least in paragraphs [019]-[030] and Figures 2A and 3 of the originally filed Specification.

In sharp contrast, the Examiner has not shown that Fujimura teaches or suggests a chuck as recited in amended claims 1, 12, and 18. For example, the Examiner on page 6 of the Office Action states that elements 7 and 8 of Figures 1 and 2 of Fujimura and elements 110 and 119 of Figures 15-18 of Fujimura may function as the claimed chuck. However, a view of each of these elements shows that none of them meet the requirements of the chuck of amended claims 1, 12, and 18. To show this, each of these elements will be explained.

Referring first to elements 7 and 8 of Figures 1 and 2, these elements are clearly sub-mounts on which a laser or photodiode is placed, and not the chuck as claimed or described in the pending application. For example, as recited above, the claims require that the chuck be exterior to **optical assembly**, the optical assembly including the header, photonic device, lens, and cap as recited in the preamble of the claims. However, elements 7 and 8 of Figures 1 and 2 are clearly inside cap 5. Since cap 5 is part of the optical assembly as defined by the claims, it is impossible for elements 7 and 8 of Figures 1 and 2 to be exterior to the optical assembly. Also, both elements 7 and 8 of Figures 1 and 2 are part of the optical assembly and thus it would be impossible for the optical assembly to be placed on top of elements 7 and 8.

Elements 110 and 119 of Figures 15-18 also are part of an optical subassembly and thus it would be impossible for the optical assembly to be placed on top of elements 110 and 119. As stated, element 119 is a ferrule holder and not a chuck. As one of skill in the art would recognize, it is not possible to place an entire optical assembly as claimed on an element designed to hold a ferrule that receives an optical fiber. Further, element 119 is not shown to have the optical assembly placed on top of it.

In addition, element 110 is a header that is interior to cap 115. In other words, header 110 is part of the optical assembly and thus would not have the remaining portions of the assembly placed on it. Further, the header, being part of the optical assembly, cannot be external to the optical assembly as recited in the claims.

In addition, the Examiner has not shown that all of the elements of dependent claim 4 are met by the art of record. For example, claim 4 as amended requires that the chuck include a recess configured to receive the header of the optical assembly. However, as previously discussed, elements 7 and 8 of Figures 1 and 2 of Fujimura and elements 110 and 119 of Figures 15-18 of Fujimura do not include a recess as recited in this claim.

Further, the Examiner has not shown that all of the elements of claim 11 are met by the art of record. For instance, claim 11 recites that the chuck is movable relative to the visual display system. However, it is clear from the cited figures elements 7 and 8 of Figures 1 and 2 of Fujimura and elements 110 and 119 of Figures 15-18 of Fujimura would not be moveable at all, let alone moveable relative to the visual display system.

Genco does not teach or suggest a chuck as recited in the pending claims and is not cited by the Examiner as teaching such. Therefore, the Examiner has failed to set forth a *prima facie* case of obviousness as the Examiner has not shown that the purported combination of Fujimura and Genco teach or suggest all the claim elements. Applicants respectfully request that the rejection of claims 1-3, 7-13, 15, 18-20, and 24-30 be withdrawn.

Further, the Examiner admits that Fujimura does not teach a visual display system, but instead relies on Genco to show this element and then purports that it would have been obvious to for one of skill in the art to use the purported visual display system of Genco with the alignment system of Fujimura. Applicants note that the question of motivation to combine the two references is whether one of skill in the art, after having read Fujimura, would be motivated to add the purported display system of Genco to Fujimura. Applicants point to column 8, lines 55-65 that are cited by the Examiner. This portion appears to teach away from the need for a visual display as the cited portion states “it would be **impossible** to carry out the axis-alignment in the XYZ directions by moving the heavy camera that is fixed to the same supporting stand as the fiber.” (Emphasis added). As Fujimura is concerned with aligning an optical fiber with a photonic device, one of skill in the art would not be motivated to add a visual display system

after reading Fujimura as Fujimura explicitly states that use of a camera, which is integral to a visual display system, would make the whole alignment process of Fujimura impossible.

In addition, assuming arguendo that there is proper motivation to combine Fujimura and Genco, the Examiner has still not shown that the purported display system of Genco teaches “a visual display system adapted to depict a position of said lens relative to said photonic device and to measure said position” (emphasis added). However, the cited portions of Genco do not teach or suggest that the purported display system of Genco is “adapted to depict a position of said lens relative to said photonic device and to measure said position” (emphasis added) as recited in the pending claims.

Therefore, the Examiner has failed to set forth a *prima facie* case of obviousness as the Examiner has not shown that there is a proper motivation to combine Fujimura and Genco or that Fujimura and Genco teach and suggest all of the elements of the pending claims. Applicants respectfully request that the rejection of claims 1-3, 7-13, 15, 18-20, and 24-30 be withdrawn.

Moreover, the Examiner has not shown that the camera in Fujimura actually depicts a position of the lens relative to a photonic device. Figures 1 and 2 of Fujimura relate to alignment of a semiconductor laser 16 with an optical fiber 9. In direct contrast, claim 1 requires “a visual display system adapted to depict a position of said lens relative to said photonic device....” Fujimura’s system of Figure 1 is simply an active configuration (like that discussed in the “Background” section of the present application) that measures the power received by the optical fiber from the semiconductor laser to determine optical alignment. No depiction of relative positions of a lens and photonic device is taught by Figures 1, 2, discussed in column 8, lines 55-65, or would be required by the teachings of Fujimura. Rather, these portions of Fujimura relate to active alignment of a fiber with a laser using the output of the laser, and not a visual depiction of their position, for alignment. Genco does not teach this element and is not cited by Examiner as teaching such.

The Examiner has also not shown that Fujimura teaches measurement of such position. Fujimura essentially “searches” for the focal point of a light transmission from the semiconductor laser by moving in various patterns. *See* Figure 5 and column 4, lines 31-63; col. 6, lines 22-53. Because Fujimura does not determine relative positions of a lens and a photonic device Fujimura also does not measure such position. Moreover, because Fujimura merely

searches for a focal point of as shown in Figure 5, Fujimura does not require measurement of a position. Genco does not teach this element and is not cited by Examiner as teaching such.

The Examiner also has not shown that a position of a lens relative to a photonic device is depicted by Fujimura. Referring to Figure 2, and its related disclosure, it is clear that Fujimura relates to alignment of a first optical device (including the semiconductor laser chip (1), the photodiode (2), and the spherical lens (6)) with the optical fiber (9). Col. 2, lines 29-32. In Figures 1 and 2 of Fujimura, “axis of the semiconductor laser chip (1), the photodiode (2) and the spherical lens (6) [have] already been aligned at the time of producing the device.” Therefore, the position of the lens (6) and semiconductor laser chip (1) need not be aligned by the invention of Fujimura. Genco does not teach this element and is not cited by Examiner as teaching such.

In other words, there is simply no reason to conclude that the teachings of Fujimura would lead one of skill in the art to conceive of the present invention. As previously mentioned, the system of Fujimura teaches an active alignment that uses power meters and wavelength measurement devices to ascertain if the lens and fiber are properly aligned. That is, when the optical transmit power is determined to be at its maximum, then the lens and fiber are properly aligned. Applicants maintain that this is far different from the visual system of the present invention where a user must use visual inspection of the position of lens relative to the laser to determine proper alignment. Applicants simply do not understand how one of skill in the art would find a passive method using a visual inspection for alignment verification obvious in light of an active method that uses power meters and wavelength measurement devices to ascertain if the lens and fiber are properly aligned.

For at least these reasons the Examiner has not set forth a proper *prima facie* case of obviousness. Therefore, Applicants respectfully request that the rejection of claims 1-3, 7-13, 15, 18-20, and 24-30 28 under 35 U.S.C. § 103(a) be withdrawn.

The Examiner rejects claims 4, 14, and 21 under 35 U.S.C. § 103 as being unpatentable over Fujimura in view of Genco and further in view of the Examiner’s Official Notice.

Claim 14 depends from claim 12, and claim 21 depends from claim 18. If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988). Therefore, claims 14 and 21 are allowable at least for

the same reason as the claim(s) from which they depend. Applicants note that amended claim 4 is allowable for the reasons already explained.

Regarding the Examiner's Official Notice, the Applicants do not argue that a zoom lens is not well known. However, the issue under section 103 is not whether each single element of a claim is known, but rather, whether the combination of the elements is known or obvious. It is well established that the mere fact that something is "well-known" cannot serve as a substitute for motivation. *See In re Sponnoble*, 160 USPQ 237, 243 (CCPA 1969) (emphasis added) ("a patentable invention, within the ambit of 35 U.S.C. §103, may result even if the invention has, in effect, merely combined features, old in the art, for their known purpose, without producing anything beyond the results inherent in their use."); *also see In re Warner*, 154 USPQ 173, 177 (CCPA 1967) which establishes that the question is never simply what is old; rather, the question is the obviousness of bringing the elements claimed in combination together. Accordingly, merely asserting that particular features of the claims are "old" or "well-known" in the art does nothing to establish a reason why one of ordinary skill in the art would have been led to combine such features and, thus, does not inherently establish obviousness. Therefore, while the Official Notice may establish that a zoom lens exists, it does nothing to establish the obviousness of the combination of elements set forth in claims 14 and 21. As such a *prima facie* case of obviousness has not been set forth and the rejections should be withdrawn.

The Examiner rejects claims 5-6, 16-17, and 22-23 under 35 U.S.C. § 103 as being unpatentable over Fujimura in view of Genco and further in view of United States Patent No. 5,621, 831 to Staver et al.

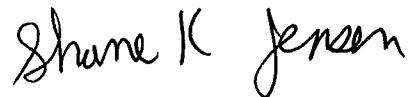
Claims 5-6 depend from claim 1, claims 16-17 depend from claim 12, and claims 22-23 depends from claim 18. If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988). Therefore, claims 5-6, 16-17, and 22-23 are allowable at least for the same reason as the claim(s) from which they depend.

**CONCLUSION**

In view of the foregoing, Applicants believe the claims as amended or presently pending are in allowable form and that every issue raised by the Office Action has been addressed. In the event that the Examiner finds remaining impediment to a prompt allowance of this application that may be clarified through a telephone interview, or which may be overcome by an Examiner's Amendment, the Examiner is requested to contact the undersigned attorneys.

Dated this 12<sup>th</sup> day of November, 2007.

Respectfully submitted,



ERIC L. MASCHOFF  
Registration No. 36,596

SHANE K. JENSEN  
Registration No. 55,301  
Attorneys for Applicants  
Customer No. 022913  
Telephone: (801) 533-9800

ELM:SKJ:ajb  
W:\15436\247.8.1\KJN0000004731V001.doc